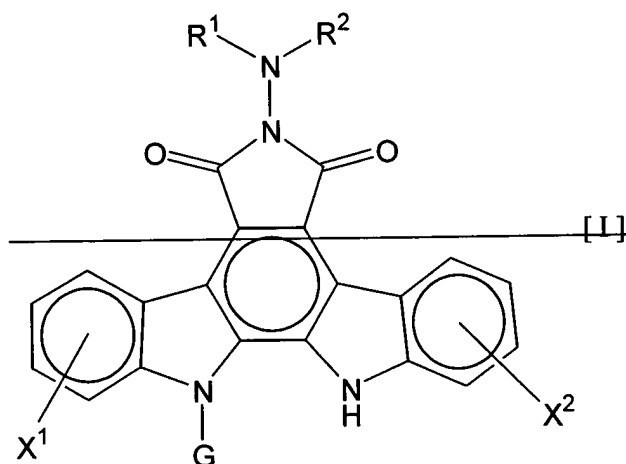


This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

Claim 1. (Currently amended) A combined preparation for simultaneous, separate, or sequential administration in the treatment of cancer, comprising two separate preparations:

(a) a first preparation comprising, in combination with a pharmaceutically acceptable carrier or diluent, ~~at least one~~ a compound of ~~general~~ formula  $\pm$  IA:



~~wherein R¹ and R² each independently represent:~~

~~a hydrogen atom, lower alkyl, lower alkenyl, lower alkynyl, aryl, aralkyl, or heterocyclic group (wherein the lower alkyl, the lower alkenyl, the lower alkynyl, the aryl, the aralkyl, and the heterocyclic group may each have one to five of the same or different substituents selected from the group consisting of~~

~~carboxyl, carbamoyl, sulfo, amino, cyano, mono-lower alkylamino, di-lower alkylamino, hydroxyl, and a halogen atom);~~

~~or a group of formula  $-Y-R^3$  wherein Y represents carbonyl, thiocarbonyl, or sulfonyl, and  $R^3$  represents a hydrogen atom, lower alkyl, cycloalkyl, cycloalkyl-lower alkyl, aryl, aralkyl, lower alkoxy, hydrazino, amino, arylamino, carbamoyl, or heterocyclic group (wherein the lower alkyl, the cycloalkyl, the cycloalkyl-lower alkyl, the aryl, the aralkyl, and the heterocyclic group may each have one to four of the same or different substituents selected from the group consisting of a halogen atom, optionally protected hydroxyl, amino, carboxyl, carbamoyl, cyano, and lower alkoxy-carbonyl in which the amino and the carbamoyl may each be further mono- or di-substituted by lower alkyl optionally substituted by a substituent or substituents selected from the group consisting of a halogen atom, hydroxyl, amino, carboxyl, carbamoyl, and lower alkoxy-carbonyl); or~~

~~a group of formula  $-(CH_2)_m-R^4$  wherein  $R^4$  is pyridyl, furyl, or thienyl (wherein the pyridyl, the furyl, and the thienyl may each have one or two substituents selected from the group consisting of hydroxyl, lower alkoxy, hydroxy-lower alkyl, and hydroxy-lower alkenyl), and m is an integer of 1 to 3,~~

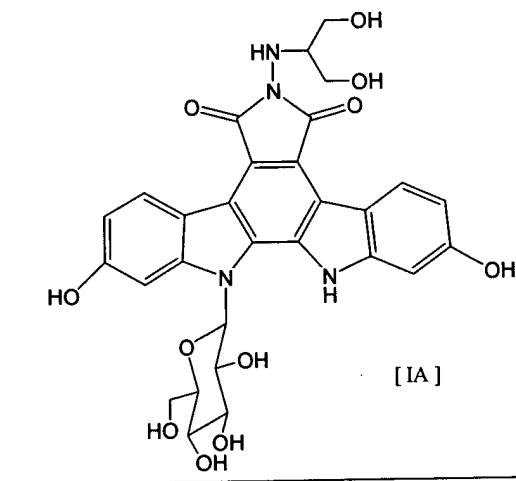
~~$R^1$  and  $R^2$  are combined together to represent lower alkylidene (wherein the lower alkylidene may have one to four of the same or different substituents selected from the group~~

~~consisting of amino, mono-lower alkylamino, di-lower alkylamino, hydroxyl, carboxyl, and sulfo), or~~

~~R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they bind, form heterocyclic group (wherein the heterocyclic group may have, on said ring, lower alkyl optionally substituted by a group or groups selected from the group consisting of amino, hydroxyl, carboxyl, and sulfo),~~

~~G represents a pentosyl or hexosyl; and~~

~~X<sup>1</sup> and X<sup>2</sup> each independently represent a hydrogen atom, a halogen atom, amino, mono-lower alkylamino, di-lower alkylamino, hydroxyl, lower alkoxy, aralkoxy, carboxyl, lower alkoxycarbonyl, or lower alkyl~~



or a pharmaceutically acceptable salt thereof; and

(b) a second preparation comprising, in combination with a pharmaceutically acceptable carrier or diluent, at least one

antitumor agent selected from the group consisting of antitumor alkylating agents, antitumor antimetabolites, antitumor antibiotics, plant-derived antitumor agents, antitumor platinum-complex compounds, antitumor camptothecin derivatives, antitumor tyrosine kinase inhibitors, monoclonal antibodies, interferons, biological response modifiers, and other antitumor agents or a pharmaceutically acceptable salt thereof

~~(wherein the antitumor alkylating agents are nitrogen mustard N-oxide, cyclophosphamide, ifosfamide, melphalan, busulfan, mitobronitol, carboquone, thiotepa, ranimustine, nimustine, or temozolomide,~~

~~the antitumor antimetabolites are methotrexate, 6-mercaptopurine riboside, mercaptopurine, 5-fluorouracil, tegafur, doxifluridine, carmofur, cytarabine, cytarabine-ecfosfate, encocitabine, S-1, gemcitabine, or fludarabine,~~

~~the antitumor antibiotics are actinomycin D, doxorubicin, daunorubicin, neocarzinostatin, bleomycin, peplomycin, mitomycin C, aclarubicin, pirarubicin, epirubicin, zinostatin stimalamer, or idarubicin,~~

~~the plant-derived antitumor agents are vineristine, vinblastine, vindesine, etoposide, sobuzoxane, docetaxel, paclitaxel, or vinorelbine,~~

~~the antitumor platinum-complex compounds are cisplatin, carboplatin, nedaplatin, or oxaliplatin,~~

~~the antitumor camptothecin derivatives are irinotecan,~~

topotecan, ~~or~~ and camptothecin,

~~the antitumor tyrosine kinase inhibitors are Iressa or~~  
~~SU5416,~~

~~the monoclonal antibodies are IMC-C225, RhuMabVEGF, or~~  
~~Rituximab,~~

~~the interferons are interferon  $\alpha$ , interferon  $\alpha$ -2a,~~  
~~interferon  $\alpha$ -2b, interferon  $\beta$ , interferon  $\gamma$ -1a, or interferon  $\gamma$ -~~  
~~n1,~~

~~the biological response modifiers are krestin, lentinan,~~  
~~sizefiran, picibanil, or ubenimex, and~~

~~the other antitumor agents are mitoxantrone, L-asparaginase,~~  
~~procarbazine, dacarbazine, hydroxycarbamide, pentostatin, or~~  
~~tretinoin) or a pharmaceutically acceptable salt thereof~~  
(wherein, if said preparation contains 5-fluorouracil, it may  
further contain leucovorin or may be combined with a separate  
leucovorin preparation).

Claim 2. (Cancelled).

Claim 3. (Cancelled).

Claim 4. (Cancelled).

Claim 5. (Cancelled).

Claim 6. (Cancelled).

Claim 7. (Cancelled).

Claim 8. (Cancelled).

Claim 9. (Cancelled).

Claim 10. (Cancelled).

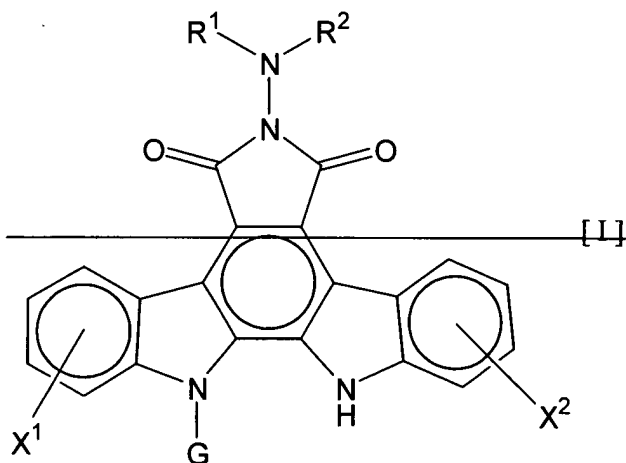
Claim 11. (Currently amended) The combined preparation as claimed in Claim ~~10~~ 1, wherein one of or both of the two separate preparations is/are parenteral preparation(s).

Claim 12. (Previously amended) The combined preparation as claimed in Claim 11, wherein one of or both of the two separate preparations is/are an injection or an infusion.

Claim 13. (Cancelled).

Claim 14. (Currently amended) A method for cancer treatment, comprising simultaneously, separately or sequentially administering to a cancer patient:

(a) a therapeutically effective amount of ~~at least one~~ a compound of ~~general~~ formula IA:



wherein  $R^1$  and  $R^2$  each independently represent:

~~a hydrogen atom, lower alkyl, lower alkenyl, lower alkynyl, aryl, aralkyl, or heterocyclic group (wherein the lower alkyl, the lower alkenyl, the lower alkynyl, the aryl, the aralkyl, and the heterocyclic group may each have one to five of the same or different substituents selected from the group consisting of carboxyl, carbamoyl, sulfo, amino, cyano, mono-lower alkylamino, di-lower alkylamino, hydroxyl, and a halogen atom);~~

~~or a group of formula  $-Y-R^3$  wherein Y represents carbonyl, thiocarbonyl, or sulfonyl, and  $R^3$  represents a hydrogen atom, lower alkyl, cycloalkyl, cycloalkyl-lower alkyl, aryl, aralkyl, lower alkoxy, hydrazino, amino, arylamino, carbamoyl, or heterocyclic group (wherein the lower alkyl, the cycloalkyl, the cycloalkyl-lower alkyl, the aryl, the aralkyl, and the heterocyclic group may each have one to four of the same or different substituents selected from the group consisting of a halogen atom, optionally protected hydroxyl, amino, carboxyl, carbamoyl, cyano, and lower alkoxycarbonyl in which the amino and the carbamoyl may each be further mono- or di-substituted by lower alkyl optionally substituted by a substituent or substituents selected from the group consisting of a halogen atom, hydroxyl, amino, carboxyl, carbamoyl, and lower alkoxycarbonyl); or~~

~~a group of formula  $-(CH_2)_m-R^4$  wherein  $R^4$  is pyridyl, furyl,~~

~~or thienyl (wherein the pyridyl, the furyl, and the thienyl may each have one or two substituents selected from the group consisting of hydroxyl, lower alkoxy, hydroxy-lower alkyl, and hydroxy-lower alkenyl), and m is an integer of 1 to 3,~~

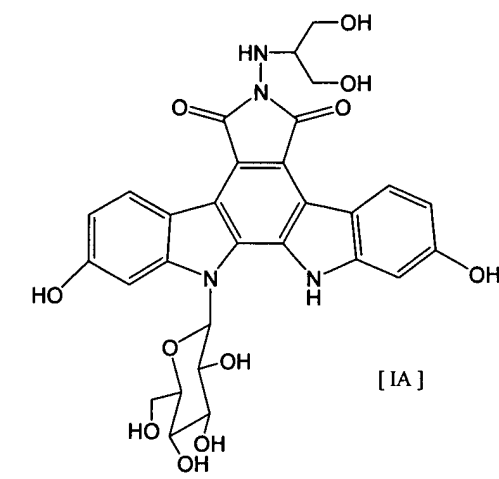
~~R<sup>1</sup> and R<sup>2</sup> are combined together to represent lower alkylidene (wherein the lower alkylidene may have one to four of the same or different substituents selected from the group consisting of amino, mono-lower alkylamino, di-lower alkylamino, hydroxyl, carboxyl, and sulfo), or~~

~~R<sup>1</sup> and R<sup>2</sup>, together with the nitrogen atom to which they bind, form heterocyclic group (wherein the heterocyclic group may have, on said ring, lower alkyl optionally substituted by a group or groups selected from the group consisting of amino, hydroxyl, carboxyl, and sulfo),~~

~~G represents a pentosyl or hexosyl; and~~

~~X<sup>1</sup> and X<sup>2</sup> each independently represent a hydrogen atom, a halogen atom, amino, mono-lower alkylamino, di-lower alkylamino, hydroxyl, lower alkoxy, aralkoxy, carboxyl, lower alkoxycarbonyl~~





or a pharmaceutically acceptable salt thereof;

and

(b) a therapeutically effective amount of at least one antitumor agent selected from the group consisting of ~~antitumor alkylating agents, antitumor antimetabolites, antitumor antibiotics, plant-derived antitumor agents, antitumor platinum-complex compounds, antitumor camptothecin derivatives, antitumor tyrosine kinase inhibitors, monoclonal antibodies, interferons, biological response modifiers, and other antitumor agents~~

~~(wherein the antitumor alkylating agents are nitrogen mustard N-oxide, cyclophosphamide, ifosfamide, melphalan, busulfan, mitobronitol, carboquone, thiotepa, ranimustine, nimustine, or temozolomide,~~

~~the antitumor antimetabolites are methotrexate, 6-mercaptopurine riboside, mercaptopurine, 5-fluorouracil, tegafur, doxifluridine, carmofur, cytarabine, cytarabine ocfosfate, enocitabine, S-1, gemcitabine, or fludarabine,~~

~~the antitumor antibiotics are actinomycin D, doxorubicin, daunorubicin, neocarzinostatin, bleomycin, peplomycin, mitomycin C, aclarubicin, pirarubicin, epirubicin, zinostatin stimalamer, or idarubicin,~~

~~the plant-derived antitumor agents are vinceristine, vinblastine, vindesine, etoposide, sobuzoxane, docetaxel, paclitaxel, or vinorelbine,~~

~~the antitumor platinum complex compounds are cisplatin, carboplatin, nedaplatin, or oxaliplatin,~~

~~the antitumor camptothecin derivatives are irinotecan, topotecan, or and camptothecin,~~

~~the antitumor tyrosine kinase inhibitors are Iressa or SU5416,~~

~~the monoclonal antibodies are IMC-C225, RhuMabVEGF, or Rituximab,~~

~~the interferons are interferon  $\alpha$ , interferon  $\alpha$ -2a, interferon  $\alpha$ -2b, interferon  $\beta$ , interferon  $\gamma$ -1a, or interferon  $\gamma$ -n1,~~

~~the biological response modifiers are krestin, lentinan, sizofiran, picibanil, or ubenimex, and~~

~~the other antitumor agents are mitoxantrone, L-asparaginase, procarbazine, dacarbazine, hydroxycarbamide, pentostatin, or tretinoin)~~

or a pharmaceutically acceptable salt thereof (wherein, if the compound of formula IA is combined with 5-fluorouracil,

leucovorin may be further combined).

Claim 15. (Cancelled).

Claim 16. (Cancelled).

Claim 17. (Cancelled).

Claim 18. (Cancelled).

Claim 19. (Cancelled).

Claim 20. (Cancelled).

Claim 21. (Cancelled).

Claim 22. (Cancelled).

Claim 23. (Cancelled).

Claim 24. (Previously Cancelled).

Claim 25. (Previously Cancelled).

Claim 26. (Previously Cancelled).

Claim 27. (Previously Cancelled).

Claim 28. (Previously Cancelled).

Claim 29. (Previously Cancelled).

Claim 30. (Previously Cancelled).

Claim 31. (Previously Cancelled).

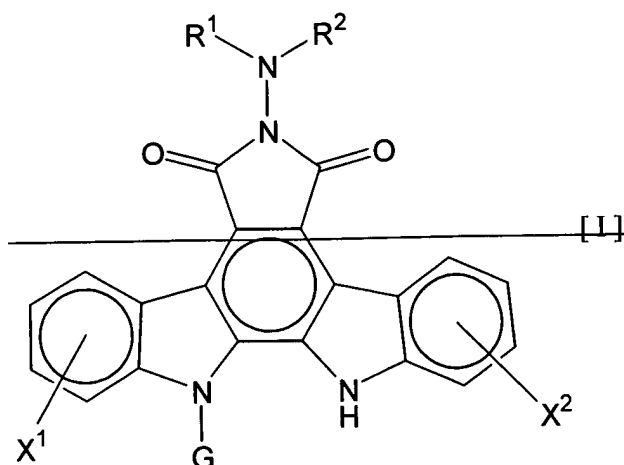
Claim 32. (Previously Cancelled).

Claim 33. (Previously Cancelled).

Claim 34. (Currently amended) A pharmaceutical composition comprising, in combination with a pharmaceutically acceptable carrier or diluent,

(a) a therapeutically effective amount of ~~at least one~~ a

compound of general formula  $\pm$  IA:



wherein  $R^1$  and  $R^2$  each independently represent:

~~a hydrogen atom, lower alkyl, lower alkenyl, lower alkynyl, aryl, aralkyl, or heterocyclic group (wherein the lower alkyl, the lower alkenyl, the lower alkynyl, the aryl, the aralkyl, and the heterocyclic group may each have one to five of the same or different substituents selected from the group consisting of carboxyl, carbamoyl, sulfo, amino, cyano, mono lower alkylamino, di lower alkylamino, hydroxyl, and a halogen atom);~~

~~or a group of formula  $Y-R^3$  wherein Y represents carbonyl, thiocarbonyl, or sulfonyl, and  $R^3$  represents a hydrogen atom, lower alkyl, cycloalkyl, cycloalkyl lower alkyl, aryl, aralkyl, lower alkoxy, hydrazino, amino, arylamino, carbamoyl, or heterocyclic group (wherein the lower alkyl, the cycloalkyl, the cycloalkyl lower alkyl, the aryl, the aralkyl, and the heterocyclic group may each have one to four of the same or~~

~~different substituents selected from the group consisting of a halogen atom, optionally protected hydroxyl, amino, carboxyl, carbamoyl, cyano, and lower alkoxy carbonyl in which the amino and the carbamoyl may each be further mono- or di-substituted by lower alkyl optionally substituted by a substituent or substituents selected from the group consisting of a halogen atom, hydroxyl, amino, carboxyl, carbamoyl, and lower alkoxy carbonyl); or~~

~~a group of formula  $-(CH_2)_m-R^4$  wherein  $R^4$  is pyridyl, furyl, or thienyl (wherein the pyridyl, the furyl, and the thienyl may each have one or two substituents selected from the group consisting of hydroxyl, lower alkoxy, hydroxy lower alkyl, and hydroxy lower alkenyl), and m is an integer of 1 to 3,~~

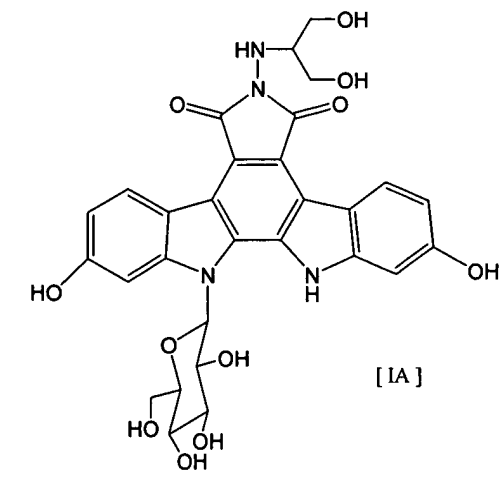
~~$R^1$  and  $R^2$  are combined together to represent lower alkyldiene (wherein the lower alkyldiene may have one to four of the same or different substituents selected from the group consisting of amino, mono lower alkylamino, di lower alkylamino, hydroxyl, carboxyl, and sulfo), or~~

~~$R^1$  and  $R^2$ , together with the nitrogen atom to which they bind, form heterocyclic group (wherein the heterocyclic group may have, on said ring, lower alkyl optionally substituted by a group or groups selected from the group consisting of amino, hydroxyl, carboxyl, and sulfo),~~

~~G represents a pentosyl or hexosyl; and~~

~~$X^1$  and  $X^2$  each independently represent a hydrogen atom, a~~

~~halogen atom, amino, mono-lower alkylamino, di-lower alkylamino, hydroxyl, lower alkoxy, aralkoxy, carboxyl, lower alkoxy carbonyl~~



or a pharmaceutically acceptable salt thereof; and

(b) a therapeutically effective amount of at least one antitumor agent selected from the group consisting of ~~antitumor alkylating agents, antitumor antimetabolites, antitumor antibiotics, plant-derived antitumor agents, antitumor platinum-complex compounds, antitumor camptothecin derivatives, antitumor tyrosine kinase inhibitors, monoclonal antibodies, interferons, biological response modifiers, and other antitumor agents or a pharmaceutically acceptable salt thereof~~

~~(wherein the antitumor alkylating agents are nitrogen mustard N-oxide, cyclophosphamide, ifosfamide, melphalan, busulfan, mitobronitol, carboquone, thiotepa, ranimustine, nimustine, or temozolomide,~~

~~the antitumor antimetabolites are methotrexate, 6-mercaptopurine riboside, mercaptopurine, 5-fluorouracil, tegafur,~~

~~doxifluridine, carmofur, cytarabine, cytarabine ocfosfate, enocitabine, S-1, gemcitabine, or fludarabine,~~

~~the antitumor antibiotics are actinomycin D, doxorubicin, daunorubicin, neocarzinostatin, bleomycin, peplomycin, mitomycin C, aclarubicin, pirarubicin, epirubicin, zinostatin stimalamer, or idarubicin,~~

~~the plant-derived antitumor agents are vincristine, vinblastine, vindesine, etoposide, sobuzoxane, docetaxel, paclitaxel, or vinorelbine,~~

~~the antitumor platinum complex compounds are cisplatin, carboplatin, nedaplatin, or oxaliplatin,~~

~~the antitumor camptothecin derivatives are irinotecan, topotecan, or and camptothecin,~~

~~the antitumor tyrosine kinase inhibitors are Iressa or SU5416,~~

~~the monoclonal antibodies are IMC-C225, RhuMabVEGF, or Rituximab,~~

~~the interferons are interferon  $\alpha$ , interferon  $\alpha$ -2a, interferon  $\alpha$ -2b, interferon  $\beta$ , interferon  $\gamma$ -1a, or interferon  $\gamma$ -n1,~~

~~the biological response modifiers are krestin, lentinan, sizofiran, picibanil, or ubenimex, and the other antitumor agents are mitoxantrone, L-asparaginase, procarbazine, dacarbazine, hydroxycarbamide, pentostatin, or tretinoin) or a pharmaceutically acceptable salt thereof (wherein, if said~~

composition contains 5-fluorouracil, it may further contain leucovorin or may be combined with a separate leucovorin preparation).

Claim 35. (Cancelled).